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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,938

02/02/2006

Richard Stone

AJF22040US

1160

3624 7590 05/23/2008

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UNITED PLAZA, SUITE 1600  
30 SOUTH 17TH STREET  
PHILADELPHIA, PA 19103

EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

05/23/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 10/566,938	<b>Applicant(s)</b> STONE ET AL.	
	<b>Examiner</b> Andrew T. Piziali	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 6-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |



**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed on 4/9/2008 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,921,750 to Todd in view of anyone of USPN 4,376,013 to Wang or USPN 5,555,917 to Quigley.

Todd discloses a triple layer industrial fabric (as defined by applicant) having a paper side (PS) layer and a machine side (MS) layer comprising polymeric warp and weft yarns woven to a repeat pattern wherein: (i) all of the warp yarns are arranged as vertically stacked pairs; (ii) all of the weft yarns comprise pairs of intrinsic weft binder yarns each having a first and second member each of which contributes to the structure of both the PS and the MS layers of the fabric and binds together the PS and MS layers; and (iii) the first and second members of each pair of the intrinsic weft binder yarns together form a single combined weft path in both the PS layer and the MS layer whereby when either the first or second member passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns (see entire document including Figures 1-4 and column 1, lines 8-13).



The fabric of Figure 1 comprises a PS layer and a MS layer woven to a plain weave pattern. In addition, the examiner takes Official Notice that the plain weave pattern is one of the three fundamental weaves along with satin and twill. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the weave any suitable weave construction, such as a plain weave, because it is within the general skill of a worker in the art to select a known weave on the basis of its suitability and desired characteristics.

Todd is silent with regards to specific yarn materials, therefore, it would have been necessary and thus obvious to look to the prior art for conventional yarn materials. Wang provides this conventional teaching showing that it is known in the art to use polymeric material such as PET (see entire document including column 8, lines 19-65). Quigley #2 also provides this conventional teaching showing that it is known in the art to use polymeric material such as polyetheretherketone (see entire document including column 2, lines 59-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the yarns from PET or polyetheretherketone motivated by the expectation of successfully practicing the invention of Todd and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 2, Todd discloses that the PS layer has an exposed PS surface and the MS layer has an exposed MS surface; and wherein (i) in a first portion of the repeat pattern, the first member is exposed in the PS surface over a number (N1) of PS warp yarns while the second member is exposed in the MS surface over a number (N2) of MS warp yarns; (ii) in a second



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portion of the repeat pattern the first member is exposed in the MS surface over a number (M1) of MS warp yarns while the second member is exposed in the PS surface over a number (M2) of PS warp yarns; and iii) relationships between values of N1, N2, M1 and M2 are selected from (a) the value of N1 is equal to the value of N2, and the value of M1 is equal to the value of M2; (b) the value of N1 is equal to the value of M2, and the value of N2 is equal to the value of M1; and (c) the values of each of N1, N2, M1 and M2 are equal (see Figures 2-4).

Regarding claim 6, for each unit area, viewed substantially perpendicularly to the PS surface of the PS layer or the MS surface of the MS layer, an open space projected through the fabric has an area in a range of 35% to 50% of the unit area (see Figures 2-4).

In the event that it is shown that Todd does not teach the claimed open space area with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the open space area because it is understood by one of ordinary skill in the art that the open space area determines the amount of air that is allowed to travel through the fabric because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 7 and 8, the fabric has an air permeability in a range of 900 to 1100 CFM (column 4, lines 44-49).

Regarding claim 10, the PS surface of the PS layer of the fabric has a polymeric resinous coating (column 1, lines 23-45 and column 4, lines 57-65).



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4. Claims 1, 2 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 4,921,750 to Todd in view of Applicant's Disclosure in view of anyone of USPN 4,376,013 to Wang or USPN 5,555,917 to Quigley.

Regarding claims 1-10, Todd discloses a triple layer industrial fabric (as defined by applicant) having a paper side (PS) layer and a machine side (MS) layer comprising polymeric warp and weft yarns woven to a repeat pattern wherein: (i) all of the warp yarns are arranged as vertically stacked pairs; (ii) all of the weft yarns comprise pairs of intrinsic weft binder yarns each having a first and second member each of which contributes to the structure of both the PS and the MS layers of the fabric and binds together the PS and MS layers; and (iii) the first and second members of each pair of the intrinsic weft binder yarns together form a single combined weft path in both the PS layer and the MS layer whereby when either the first or second member passes from the PS layer to the MS layer, the other member of the pair passes from the MS layer to the PS layer at an exchange point located between at least one common pair of warp yarns (see entire document including Figures 1-4 and column 1, lines 8-13).

The fabric of Figure 1 comprises a PS layer and a MS layer woven to a plain weave pattern. In addition, the applicant discloses that it is known in the prior art to weave a fabric according to a plain weave pattern to maximize the number of crimps per unit length of the warp yarn (page 3, line 20 to page 4, line 21). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to weave the fabric to a plain weave pattern, motivated by a desire to maximize the number of crimps per unit length of the warp yarn.



Todd is silent with regards to specific yarn materials, therefore, it would have been necessary and thus obvious to look to the prior art for conventional yarn materials. Wang provides this conventional teaching showing that it is known in the art to use polymeric material such as PET (see entire document including column 8, lines 19-65). Quigley #2 also provides this conventional teaching showing that it is known in the art to use polymeric material such as polyetheretherketone (see entire document including column 2, lines 59-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the yarns from PET or polyetheretherketone motivated by the expectation of successfully practicing the invention of Todd and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 2, Todd discloses that the PS layer has an exposed PS surface and the MS layer has an exposed MS surface; and wherein (i) in a first portion of the repeat pattern, the first member is exposed in the PS surface over a number (N1) of PS warp yarns while the second member is exposed in the MS surface over a number (N2) of MS warp yarns; (ii) in a second portion of the repeat pattern the first member is exposed in the MS surface over a number (M1) of MS warp yarns while the second member is exposed in the PS surface over a number (M2) of PS warp yarns; and iii) relationships between values of N1, N2, M1 and M2 are selected from (a) the value of N1 is equal to the value of N2, and the value of M1 is equal to the value of M2; (b) the value of N1 is equal to the value of M2, and the value of N2 is equal to the value of M1; and (c) the values of each of N1, N2, M1 and M2 are equal (see Figures 2-4).



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Regarding claim 6, for each unit area, viewed substantially perpendicularly to the PS surface of the PS layer or the MS surface of the MS layer, an open space projected through the fabric has an area in a range of 35% to 50% of the unit area (see Figures 2-4).

In the event that it is shown that Todd does not teach the claimed open space area with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the open space area because it is understood by one of ordinary skill in the art that the open space area determines the amount of air that is allowed to travel through the fabric because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 7 and 8, the fabric has an air permeability in a range of 900 to 1100 CFM (column 4, lines 44-49).

Regarding claim 10, the PS surface of the PS layer of the fabric has a polymeric resinous coating (column 1, lines 23-45 and column 4, lines 57-65).

### ***Response to Arguments***

5. Applicant's arguments filed 4/9/2008 have been fully considered but they are not persuasive.

The applicant asserts that the weft yarns of Todd are not intrinsic weft yarns. The examiner respectfully disagrees. The applicant defines "intrinsic weft binder yarns" on page 8, lines 12-16. The weft yarns of Todd satisfy this description. The applicant has failed to show or specifically state how the weft yarns of Todd are not arranged as intrinsic weft yarns.



The applicant asserts that the weft yarns of Todd do not form a single combined weft yarn path. The examiner respectfully disagrees. The applicant defines a single combined weft yarn path as the combined path followed by each weft yarn wherein the second yarn is displaced by one-half of a pattern repeat from the first member (page 10, lines 19-24). The weft yarns of Todd satisfy this description. The applicant has failed to show or specifically state how the weft yarns of Todd do not form a single combined weft yarn path.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.



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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541.

The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/  
Primary Examiner, Art Unit 1794